

-CPT8 series

Rotating torque transducer without contact transmission

Ref : FP 3505

Rev :



DESCRIPTION

The torque meter was designed to measure static and dynamic torque on rotating machines, test benches and automatic tightening systems.

The torque meter measures *clockwise* torque with *positive* output in tension or *anticlockwise* torque with the *negative* output in tension.

For correct operation and measurement accuracy, it is necessary to prepare:

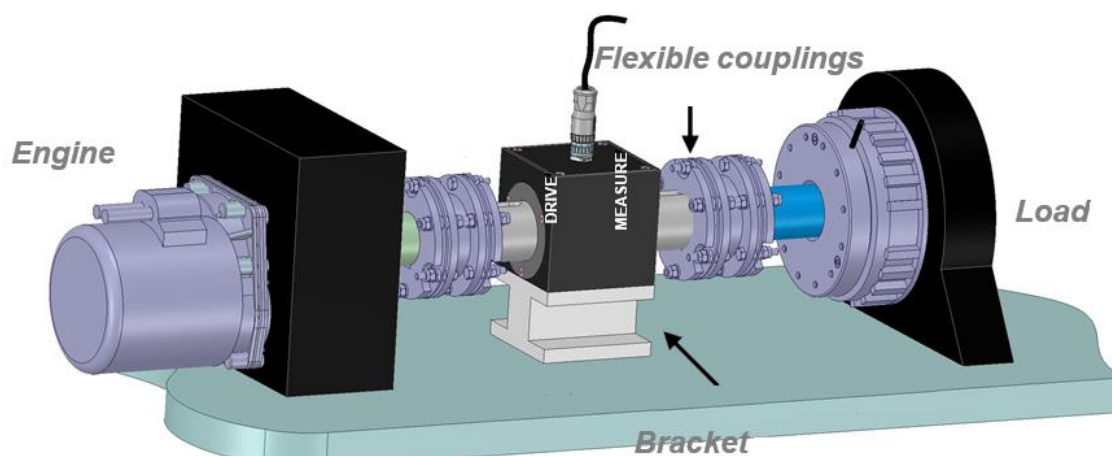
2 SHAFT COUPLINGS with bellow or disc pack according to nominal torque and rotation speed (max 4000 rpm).

1 ADJUSTABLE SUPPORT that allows during assembly to align the torque transducer with two connecting shafts (± 0.1 mm tolerance).

The coupling of the torque transducer must be done disconnected from the machine (system) with the torque meter connected to the display, thus verifying in real time that no twisting, bending or tension are generated with possible overload of the torque transducer.

Fit the torque transducer with the couplings on the support, align the system along its own axis and connect the system. Even in this phase, always check that the measurement shown on the display does not exceed the nominal torque of the torque transducer.

APPLICATION



TECHNICAL CHARACTERISTICS

NOMINAL TORQUE	0.5 - 2.5 - 5 - 10- 25 - 50 N•m 100 - 250 - 500 Nm 1000 - 3000 5000 Nm
LINEARITY and HYSTERESIS	$\leq \pm 0.2 \%$
TEMPERATURE EFFECT (1°C): a) on zero b) on sensitivity	$\leq \pm 0.02 \%$ $\leq \pm 0.02 \%$
NOMINAL SENSITIVITY SENSIVITY TOLERANCE	$\pm 10V$ $\leq \pm 0.2 \%$
NOMINAL POWER SUPPLY MAX. POWER SUPPLY MAX. ABSORPTION LOADING RESISTANCE RESPONSE FREQUENCY	17-24V 28V 60mA min. 3K Ω 1kHz
INSULATION RESISTANCE ZERO BALANCE	$>2 \text{ G}\Omega$ $\leq \pm 0.5 \%$
LIMIT MECHANICAL VALUES: a) service torque b) max. permissible torque c) breaking torque d) highly dynamic torque e) nominal speed	 100 % 150 % >300 % 70 % 4000 rpm
REFERENCE TEMPERATURE WORKING TEMPERATURE RANGE STORAGE TEMPERATURE RANGE	+23 °C -10 / +70 °C -20 / +80 °C
PROTECTION CLASS (EN60529) SENSOR EXECUTION MATERIAL CASE EXECUTION MATERIAL PROCESS COUPLING	IP40 Stainless Steel Aluminium Cylindrical
ELECTRICAL CONNECTION	Connection: M12X1 Male 5 poles 3 m cable with molded M12
WEIGHT from 0.5 to 500 Nm WEIGHT from 1000 to 5000 Nm	from 0.65 to ~1 kg ~ 6 kg

